# CLAIMS

1. A semiconductor element comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film that is interposed between the pair of n-type impurity regions and that is formed over the semiconductor film; and

a conductive layer formed over the pair of n-type impurity regions.

2. A semiconductor element comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film having a thickness of 100 nm or more that is interposed between the pair of n-type impurity regions and that is formed over the semiconductor film; and

a conductive layer formed over the pair of n-type impurity regions.

3. A semiconductor element comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film that is interposed between the pair of n-type impurity regions

and that is formed over the semiconductor film; and

a conductive layer formed over the pair of n-type impurity regions;

wherein a thickness of a portion of the semiconductor film over which the insulating film is formed is thinner than that of the other semiconductor film, and the semiconductor film over which the insulating film is formed has a thickness of 10 nm or more.

4. A semiconductor element according to any one of claims 1 to 3, wherein the insulating film comprises at least one selected from the group consisting of polyimide, acrylic, and a material which has a skeleton formed by a bond of silicon and oxygen, and which includes at least hydrogen as a substituent, or at least one selected from the group consisting of fluoride, alkyl group, and aromatic hydrocarbon as a substituent.

5. A semiconductor element according to any one of claims 1 to 3, wherein the layer comprises titanium oxide.

6. A semiconductor element according to any one of claims 1 to 3, wherein the semiconductor element is incorporated in at least one selected from the group consisting of a TV reception set, an electronic book and a cellular phone.

7. A method for manufacturing a semiconductor element comprising:

forming a gate electrode layer by discharging a composite containing a first conductive material over a substrate;

forming a gate insulating film over the gate electrode layer;

forming a semiconductor film over the gate insulating film;

forming a semiconductor film containing an impurity element having a conductivity type over the semiconductor film;

forming a source electrode and a drain electrode by discharging a composite containing a second conducive material over the semiconductor film containing the impurity element having the conductivity type;

forming an insulating film over a portion of the semiconductor film; and

forming an island-like semiconductor film by removing the semiconductor film using the source electrode, the drain electrode, and the insulating film as masks.

8. A method for manufacturing a semiconductor element comprising:

forming a layer comprising titanium over at least a portion of a substrate;

forming a gate electrode layer by discharging a composite containing a first conductive material over the layer;

forming a gate insulating layer over the gate electrode layer;

forming a semiconductor film over the gate insulating layer;

forming a semiconductor film containing an impurity element having a conductivity type over the semiconductor film;

forming a source electrode and a drain electrode by discharging a composite containing a second conductive material over the semiconductor film containing the impurity element having the conductivity type;

forming a source region and a drain region by removing the semiconductor film containing the impurity element having the conductivity type using the source electrode and the drain electrode as masks;

forming an insulating film over a portion of the semiconductor film; and

forming an island-like semiconductor film by removing the semiconductor film using the source electrode, the drain electrode, and the insulating film as masks.

9. A method for manufacturing a semiconductor element according to claim 7 or 8, wherein the insulating film comprises at least one selected from the group consisting of polyimide, acrylic, and a material which has a skeleton formed by a bond of silicon and oxygen, and which includes at least hydrogen as a substituent, or at least one selected from the group consisting of fluoride, alkyl group, and aromatic hydrocarbon as a substituent.

10. A method for manufacturing a semiconductor element according to claim 7

or 8, wherein the portion comprises a channel region.

11. A method for manufacturing a semiconductor element according to claim 8, wherein the layer comprises titanium oxide.

12. A method for manufacturing a semiconductor element according to claim 7 or 8, wherein the semiconductor element is incorporated in at least one selected from the group consisting of a TV reception set, an electronic book and a cellular phone.

13. A liquid crystal display device comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film that is interposed between the pair of n-type impurity regions and that is formed over the semiconductor film;

a conductive layer formed over the pair of n-type impurity regions; and

a pixel electrode electrically connected to the conductive layer.

14. A liquid crystal display device comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film having a thickness of 100 nm or more that is interposed between the pair of n-type impurity regions and that is formed over the semiconductor film;

a conductive layer formed over the pair of n-type impurity regions; and

a pixel electrode electrically connected to the conductive layer.

15. A liquid crystal display device comprising:

a layer comprising titanium formed over a substrate;

a gate electrode layer formed over the layer;

a gate insulating film formed over the gate electrode layer;

a semiconductor film formed over the gate insulating film;

a pair of n-type impurity regions formed over the semiconductor film;

an insulating film that is interposed between the pair of n-type impurity regions and that is formed over the semiconductor film;

a conductive layer formed over the pair of n-type impurity regions; and

a pixel electrode electrically connected to the conductive layer;

wherein a thickness of a portion of the semiconductor film over which the insulating film is formed is thinner than that of the other semiconductor film, and the semiconductor film over which the insulating film is formed has a thickness of 10 nm or more.

16. A liquid crystal display device according to any one of claims 13 to 15, wherein the insulating film comprises at least one selected from the group consisting of polyimide, acrylic, and a material which has a skeleton formed by a bond of silicon and oxygen, and which includes at least hydrogen as a substituent, or at least one selected from the group consisting of fluoride, alkyl group, and aromatic hydrocarbon as a substituent.

17. A liquid crystal display device according to any one of claims 13 to 15, wherein the layer comprises titanium oxide.

18. A liquid crystal display device according to any one of claims 13 to 15, wherein the liquid crystal display device is incorporated in at least one selected from the group consisting of a TV reception set, an electronic book and a cellular phone.

19. A method for manufacturing a liquid crystal display device comprising:

forming a gate electrode layer by discharging a composite containing a first conductive material over a substrate;

forming a gate insulating film over the gate electrode layer;

forming a semiconductor film over the gate insulating film;

forming a semiconductor film containing an impurity element having a conductivity type over the semiconductor film;

forming a source electrode and a drain electrode by discharging a composite containing a second conducive material over the semiconductor film containing the impurity element having the conductivity type;

forming a source region and a drain region by removing the semiconductor film containing the impurity element having the conductivity type using the source electrode and the drain electrode as masks;

forming an insulating film over a portion of the semiconductor film;

forming an island-like semiconductor film by removing the semiconductor film using the source electrode, the drain electrode, and the insulating film as masks; and

forming a pixel electrode electrically connected to one of the source electrode and the drain electrode.

20. A method for manufacturing a liquid crystal display device comprising:

forming a layer comprising titanium over at least a portion of a substrate;

forming a gate electrode layer by discharging a composite containing a first conductive material over the layer;

forming a gate insulating layer over the gate electrode layer;

forming a semiconductor film over the gate insulating layer;

forming a semiconductor film containing an impurity element having a conductivity type over the semiconductor film;

forming a source electrode and a drain electrode by discharging a composite containing a second conductive material over the semiconductor film containing the

impurity element having the conductivity type;

forming a source region and a drain region by removing the semiconductor film containing the impurity element having the conductivity type using the source electrode and the drain electrode as masks;

forming an insulating film over a portion of the semiconductor film;

forming an island-like semiconductor film by removing the semiconductor film using the source electrode, the drain electrode, and the insulating film as masks; and

forming a pixel electrode electrically connected to one of the source electrode and the drain electrode.

21. A method for manufacturing a liquid crystal display device according to claim 19 or 20, wherein the insulating film comprises at least one selected from the group consisting of polyimide, acrylic, and a material which has a skeleton formed by a bond of silicon and oxygen, and which includes at least hydrogen as a substituent, or at least one selected from the group consisting of fluoride, alkyl group, and aromatic hydrocarbon as a substituent.

22. A method for manufacturing a liquid crystal display device according to claim 19 or 20, wherein the portion comprises a channel region.

23. A method for manufacturing a liquid crystal display device according to claim 20, wherein the layer comprises titanium oxide.

24. A method for manufacturing a liquid crystal display device according to claim 19 or 20, wherein the liquid crystal display device is incorporated in at least one selected from the group consisting of a TV reception set, an electronic book and a cellular phone.